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**From:** Zambrana, Jose [Zambrana.Jose@epa.gov]  
**Sent:** 4/22/2019 6:17:56 PM  
**To:** Widener, Kelly [Widener.Kelly@epa.gov]; Guiseppi-Elie, Annette [Guiseppi-Elie.Annette@epa.gov]; Thomas, Kent [thomas.kent@epa.gov]  
**Subject:** RE: Media inquiry on status of crumb rubber study

Hi Kelly. Thanks!

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**From:** Widener, Kelly  
**Sent:** Monday, April 22, 2019 5:41 AM  
**To:** Guiseppi-Elie, Annette <Guiseppi-Elie.Annette@epa.gov>; Zambrana, Jose <Zambrana.Jose@epa.gov>; Thomas, Kent <thomas.kent@epa.gov>  
**Subject:** Media inquiry on status of crumb rubber study

Just sharing for awareness.

Thanks,

Kelly

Kelly Widener  
Research Communications Director  
NCER/ORD  
U.S. Environmental Protection Agency  
Phone: (202) 564-6367  
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<https://www.fairwarning.org/2019/04/crumb-rubber-cancer/>

## **No Verdict in Sight on Safety of Crumb Rubber Fields, Prompting Angst All Around**

By [Marjie Lundstrom](#) on April 18, 2019



(Photo by Dennis Grombkowski/Bongarts/Getty Images)

Amanda Gabriele of North Haven, Conn., would love to be wrong.

The mother of two, Gabriele has been anxiously awaiting results of a federal study begun in 2016 to unravel the public health mystery of synthetic turf laced with crumbs of ground-up tires. With at least 12,000 crumb rubber fields already in use in the United States – and 1,200 to 1,500 more going in each year – the stakes of the federal study are high: Has America finally found a new home for its old, cast-off tires? Or are these fields ticking time bombs, exposing children and young adults to cancer-causing chemicals and other dangerous toxins?

Gabriele helped lead a 2017 campaign in her community to halt installation of two crumb rubber fields at a local middle school, only to find herself mired in an ugly public debate punctuated by shouting matches and anonymous threats. The fields went in anyway, but Gabriele remains among those nationwide – and globally – who suspect that crumb rubber poses a potentially serious threat, especially to children.

“I would love to have the federal study come out and tell me I am wrong about crumb rubber,” said Gabriele, a member of the North Haven school board. “I hope the stuff is safe. There are millions of kids playing on these fields every day.”

Unfortunately for Gabriele and thousands more parents, school administrators, coaches and the recycling industry, the verdict from the federal government still is not in.

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More than three years after the study began, the agencies have not issued any safety findings from their highly anticipated crumb rubber study. The research team includes the Environmental Protection Agency, the Consumer Product Safety Commission and the Centers for Disease Control and Prevention.

### **Missed targets**

In December, a branch of the CDC called the Agency for Toxic Substances and Disease Registry asked for more time to collect additional data and samples. The agencies already have missed at least two target deadlines – one in 2016 and another in 2017 – to produce research results, FairWarning has found.

For reasons that are unclear, the agencies have been unwilling to make anyone available to discuss details and progress of the research, despite multiple interview requests by FairWarning to all three agencies.



Amanda Gabriele of North Haven unsuccessfully fought installation of two crumb rubber fields. (Photo courtesy of Amanda Gabriele) California, meanwhile, is nearing completion this year of its own study of the potential health effects of fields and playground mats made with recycled tires.

“People want answers,” said Louis Burch, Connecticut program director for Citizens Campaign for the Environment, which has sounded the alarm for years about the fields’ safety. “This is especially egregious because we’re talking about a potential children’s health risk.

“It’s time the federal government get up and deliver what they’ve been promising.”

Frustration over the study has boiled over to the U.S. Senate. On April 17, three Democratic senators sent a letter to leaders of a Senate Appropriations subcommittee, urging them to budget \$1 million for the Consumer Product Safety Commission to “continue its critical work” on the crumb rubber study. Among other things, the commission had been assigned to observe children on playground surfaces made with recycled tires, and the incidence of them inhaling, swallowing or having skin contact with the particles.

“The findings of this research are essential to public health and safety as crumb rubber continues to be used and deployed in play surfaces across the country,” said the letter by Sens. Richard Blumenthal of Connecticut, Elizabeth Warren of Massachusetts and Kirsten Gillibrand of New York.

The letter was directed to Sen. John Kennedy, R-Louisiana, and Sen. Christopher Coons, D-Delaware, the chairman and ranking minority member of the appropriations panel that oversees the CPSC budget.

Blumenthal was among those who had pressed early on for a federal investigation into the health risks of crumb rubber and appealed to President Obama in January 2016 to “spearhead a comprehensive study.” The federal study was announced the following month.

“Unfortunately, it appears that research under this program may have stalled,” the senators wrote this week.



Connecticut Senator Richard Blumenthal.

Some suspect, however, that the apparent lag is as much about politics as funding. Kevin Bell, staff counsel at Public Employees for Environmental Responsibility, a non-profit advocacy group, said the missed deadlines and overdue reports are not surprising and represent a “pattern of practice” in the Trump administration.

“This delay was entirely predictable based on the history of this issue particularly and of the current administration’s languid stance on health and safety,” he said. “The approach the regulatory agencies are sticking with is a Trump-era classic: Do nothing until the public forgets that they were asked to do something in the first place.”

The recycling industry repeatedly has said the fields are safe, and that numerous studies have failed to find any link between crumb rubber and cancer, or any other risk.

Others studies, however, raise concerns about the prospect of children breathing, swallowing or having skin contact with these pulverized pieces of old tires. One 2015 report identified high levels of arsenic and cadmium, known human carcinogens, in several samples of rubber mulch from recycled tires. Other researchers have found varying levels of lead in the fields they tested.

A 2015 study at Yale University found 96 chemicals in 14 samples of crumb rubber infill and rubber mulch used in playgrounds. The study found that almost half of the detected chemicals had not been screened for toxicity, and of the rest, 20 percent were considered to be probable carcinogens.

More famously, a women’s soccer coach at the University of Washington garnered headlines after she began collecting anecdotal evidence in 2009 of young athletes who were diagnosed with cancer after playing on this form of synthetic turf. Amy Griffin, a former American soccer star, reported that soccer goalies – who dive and slide on the turf – had a higher incidence of cancer than other players.

#### **A human face**

As of early this year, Griffin’s tally had reached 260 and included players in several sports. Of those, the majority had developed blood cancers—leukemia and Non-Hodgkin and Hodgkin lymphomas. More than half of the soccer players who contracted cancer were goalkeepers, despite the fact that goalies account for only about 10 percent of a soccer team.

“I know correlation does not equal causation,” Griffin said at a forum in February at the Yale University School of Public Health. “The reason I think this has become a story and the reason I think I’m here is that for every statistic that scientists and toxicologists are working on, I have a human face to attach to this.”

The Washington State Department of Health investigated and found that the number of cancers among soccer players on Griffin’s list was lower than expected, based on rates among Washington

residents of the same ages. In its 2017 report, the department recommended that “people who enjoy soccer continue to play irrespective of the type of field surface.”

While Griffin continues adding names, the federal agencies apparently want a closer look at certain chemical exposures. In a [Federal Register notice](#) in late December, the toxic substances agency said it is seeking approval from the Office of Management and Budget to expand the research to a larger pool of subjects. It would include about 150 children and adults who play on crumb rubber fields and a comparison group of 50 who play on natural grass. Besides issuing questionnaires to the participants about activity patterns and diet, for instance, the researchers also will analyze urine samples, according to the Federal Register notice.



North Haven Third Selectman Sally Buemi (far right), at a December 2018 meeting, had urged residents to wait for results from the federal study before installing crumb rubber fields. (Photo courtesy of Hearst Connecticut Media)

The CDC, which oversees the toxic substances agency, says the additional research would take two years.

Leaders of the recycling industry have expressed their own frustrations with the study, complaining that the agencies are dragging out their work while ignoring existing studies that validate the turf's safety.

“In short, the only issue left unsettled in the recycled rubber debate is whether the EPA and its fellow agencies will conclude their study in a timely way or at least issue a statement to the public to put a prompt end to today's uncertainty,” according to [an op-ed published in June 2017 by The Hill](#), written by Dan Bond, president and CEO of the Synthetic Turf Council, a trade group, and two other industry representatives.

Representatives for the Synthetic Turf Council and the Institute of Scrap Recycling Industries did not respond to repeated requests for comment. However, a Q & A on the turf council's website states that the technology is “an environmental success story because every year the crumb rubber infill diverts about 30 million used car and truck tires from landfills, conserves billions of gallons of water by reducing the need to irrigate and avoids the use of pesticides and fertilizers.”

### **Success story, or suburban boogeyman?**

The irony of the crumb rubber story is its unlikely journey from environmental success story to suburban boogeyman.

Developed in the late 1990s, crumb rubber turf was considered a vast improvement over the 1960s surface known as AstroTurf, which amounted to a carpet of short, fake grass laid over a pad and asphalt base.

Unlike its predecessor, crumb rubber turf was a synthetic carpet of longer, grassy-looking fibers filled in with ground-up scrap tires. The new generation of artificial turf was billed as a win-win, providing a destination for junk tires and a more cushioned playing surface for children and athletes.

During that era, the EPA promoted the use of turf made from recycled tires and assured the public in 2009 that there was little cause for health concerns, a position from which the agency later retreated. Recyclers touted crumb rubber turf as a low-cost alternative to natural grass that was easier to maintain. And, they noted, it extended playing seasons in rainy climates, where a grass field could quickly become a muddy bog.

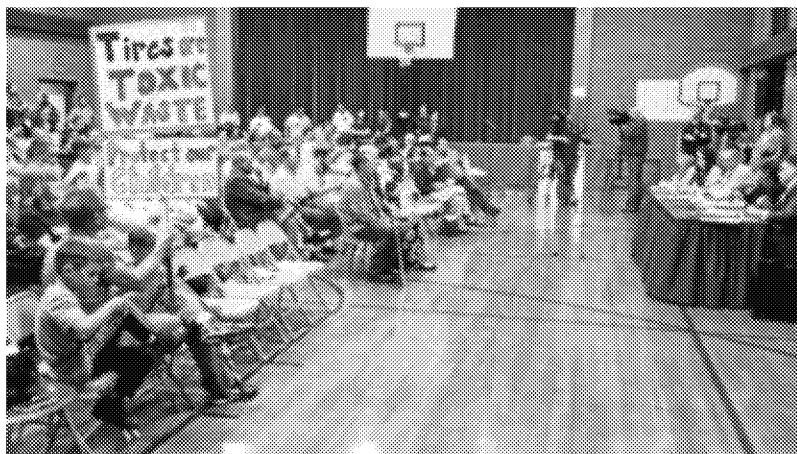
But there was a noticeable byproduct.

The tiny black granules embedded in the turf also clung to skin and clothing, and black dust could be seen spewing into the air during play. Suddenly, soccer moms and coaches were raising questions about the potential harm to children.

### **Little black beads**

Lillie Jessie, a school board member in Prince William County, Va., urged the board last year to consider alternative materials for two new fields at local high schools.

“I was startled with the kind of contact sports that were going to be played on top of these fields with those little black beads,” she said. “My thought was, it couldn’t be good for people.”



A packed room greets North Haven selectmen in May 2017 during the town’s contentious debate over crumb rubber turf fields. (Photo courtesy of Hearst Connecticut Media)

The school district moved forward this year with crumb rubber, after bids for plant-based material added as much as \$250,000 to the price of each field.

Amid conflicting studies, with each side accusing the other of incomplete data or poor study design, schools and municipalities have been on their own to sort it out. In some places, the lack of federal findings has only intensified the debate, creating deep fractures among residents.

In North Haven, a community of about 24,000 near Yale University, a May 2017 public meeting to discuss the planned fields devolved into shouting matches, accusations and rude comments, according to people who attended.

“It was horrible. It was quite a dark day for my beloved town,” said Sally Buemi, an attorney and local elected official who urged residents to consider holding off on the fields until the federal study was complete.

“It turned into this pro-sports vs. anti-sports thing, rather than a civil discussion about what’s in the best interest of our children from a health standpoint,” she said.

## Anger runs high

Not long after the contentious meeting, she said, someone vandalized her picture window and left dog poop on her porch. Danielle Morfi, a vocal opponent, said she received an anonymous threatening letter.

Last year, officials in Westport, Conn, passed a ban on crumb rubber turf as the town was gearing up to replace four of its fields. In Edmonds, Wash., the city council extended its ban last year for the third time on crumb rubber installations, saying it wanted to get results of the federal study. Still other locales have sought alternative infill products, such as coconut fiber and cork.

So what has happened to the federal report?

Public documents show that, at the time of the February 2016 announcement, the agencies said they anticipated releasing a draft status report with preliminary findings and conclusions by the end of that year.

The draft report arrived on schedule in December 2016, but there were no preliminary findings or conclusions – which the report acknowledged up front.

“The results of the research on synthetic turf fields will be available later in 2017,” the report stated.

That didn’t happen, either.

The EPA said this week in a statement that the original timeline was affected by the “time needed to meet important federal approvals, challenges in the availability and timing for gaining access to participating organizations, and conducting and addressing external peer review comments.”

An EPA spokeswoman, Maggie Sauerhage, said the agency expects to release a draft report in the next 60 days on samples gathered from nine tire recycling plants, and 40 indoor and outdoor fields. Researchers planned to conduct a laboratory analysis on the samples for a wide range of metals, chemicals and microbes.

That information, however, will not address overall safety questions and exposure risks.

In California, which has endured its own turf wars, the state is planning to release a draft report on the safety of crumb rubber this summer, said Sam Delson, spokesman for California’s Office of Environmental Health Hazard Assessment.

“We hope our report will answer as many questions as possible,” he said.